

REMARKS

This patent application presently includes claims 1, 2, 5-12, 15-22, 25-32, and 35-45, of which claims 42-45 are newly added, and the remaining claims stand rejected. The subsisting claims are amended to define the applicant's invention more clearly, and all rejections are respectfully traversed.

The Examiner objected to Figure 2 of the drawings, stating that it should be indicated as prior art. Accompanying this amendment are substitute sheets 2 and 3 in which Figures 2 and 3 have been indicated as prior art. It is requested that the objection to the drawings now be withdrawn.

The Examiner objected to the title of the application as not being descriptive. The title has now been amended to read "An Image Processing Method for Generating Three-Dimensional Images On A Two-Dimensional Screen." It is believed that this title is now sufficiently descriptive, and the objection should be withdrawn.

Claims 31-41 were rejected under 35 U.S.C. §101 as addressed to non-statutory subject matter. All of these claims have now been amended to recite a stored program on some form of medium and that the program steps are performed by a program portion. This is statutory subject matter, so the rejection under 35 U.S.C. §101 should therefore be withdrawn. MPEP section 2106 IV.B.2(b) provides, in relevant part:

To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan ...to be limited to a practical application within the technological arts...

There can be no doubt that a practical application is involved in the present instance.

Claims 1, 2, 5, 9, 11, 12, 15-19, 21, 22, 25-29, 31, 32, 35-39 and 41 were rejected as anticipated by *Liguori*, U.S. Patent No, 5,912,672. This rejection is respectfully traversed. *Liguori* does not teach or suggest the presently claimed invention.

As presently amended, all of the rejected claims include the feature that the first image is blurred in order to generate a second image. This feature was originally present in claims 4, 14 and 34 (now canceled), which the Examiner rejected only under 35 U.S.C. §103. Accordingly, it is clear that none of the presently rejected claims would be rejected under 35 U.S.C. §102. Accordingly, this rejection will be discussed no further. Instead, the undersigned will concentrate on the obviousness rejection and, in particular, the potential obviousness rejection of the amended independent claims.

When making the obviousness rejection, the Examiner took "Official Notice" that blurring is well known in the art as a method of smoothing image edges. He then concluded that it would have been obvious to one of ordinary skill in the art to blur the first image and to generate a second image before synthesizing the first and second images in order to perform anti-aliasing on the image edges. Thus, the rejection goes well beyond the subject matter of the Official Notice.

There can therefore be no doubt that this rejection is based upon facts within the personal knowledge of the Examiner. The applicant therefore calls upon the Examiner, pursuant to 37 CFR §1.104(d)(2), to support this rejection with his affidavit, which shall be subject to contradiction or explanation by the affidavit of an appropriate expert.

From a substantive point of view, the Examiner has not made out a prima facie case of obviousness. Simply because it

may have been known in the prior art to blur edges on an image in order to reduce aliasing, does not provide any basis for generating a second image by blurring the first image and synthesizing the two images, much less for doing so depending upon a coefficient value which was retrieved from a table using a value from the predetermined data section as an index. In the absence of a prior art basis or an affidavit setting forth sufficient facts to support the rejection, the Examiner has failed to make out a prima facie case of obviousness, and this rejection must fail. Moreover, the failure to make out a prima facie case of obviousness is applicable to all of the claims since they all incorporate these distinguishing features.

In rejecting claims 10, 20, 30 and 40, the Examiner took "Official Notice" that Laplacean filtering is well known in the art as a method of edge detection and that it would have been obvious for one of ordinary skill in the art to apply such filtering. For the same reasons set forth above, the applicant calls upon the Examiner to support this rejection in an affidavit. Similarly, the examiner has based the rejection on the existence of a basic filtering principal without providing any rationale for applying it to the claimed subject matter.

Newly submitted claims 42-45 are addressed to further aspects of the invention. Specifically, data defining an image is extracted by making use of Laplacean filtering; a coefficient value is retrieved from a table using a value of this predetermined data as an index; and the image is subjected to processing using the retrieved coefficient value. There is not the slightest suggestion in the record of extracting predetermined data from image-defining data by means of Laplacean filtering. Nor is there the slightest suggestion of using a value of the extracted data as an index to retrieve another value that is then used to control image processing. This claim is therefore believed to be allowable

According to claim 43, a data structure is maintained which stores a value of a luminance attribute for pixels in association with a second set of gradated values. A second data structure is produced which associates luminance attribute values with pixels in the image, the luminance attribute values in the second data structure are then weighted with the corresponding gradated values of the first data structure to produce a weighted second data structure; and the image is synthesized with a blurred version of itself using the weighted second data structure as a weighting factor for performing the synthesis. This results in a synthesized image which has reduced edge aliasing compared to the original image. This is a generalized description of the process illustrated in Figure 6 and described in the corresponding text of the application. Moreover, there is not the slightest suggestion in the record of performing image synthesis in this manner or that it could possibly be of any benefit in reducing edge aliasing. Accordingly, claim 43 is believed to be allowable.

Claims 44 and 45 depend from claim 43 and are allowable based upon their dependence from an allowable claim. However, these claims are also believed to be allowable on their own merits. Specifically, claim 44 provides that prior to the synthesizing step the luminance attribute values from the second data structure are filtered to emphasize pixel-to-pixel differences. In claim 45, this filtering is described as "Laplacean." These are further features of the process described in the flow chart of Fig. 6. Moreover, this type of filtering improves the reduction of aliasing discussed above. Accordingly, these claims are believed to be allowable on their own merits.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If,

however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he/she telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted

By 

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